VI. Recommendations

The recommendations in this section are aimed at creating an integrated Action Transportation network in the City of Canandaigua. As noted in the executive summary these recommendations are supported by City of Canandaigua Comprehensive Plan and by numerous county, regional state and federal plans and policies.

All recommendations are to be in accordance with AASHTO, FHWA, NYDOT and any other relevant standards.

The recommendations in this Plan are not meant to be all inclusive and need to be re-evaluated during the engineering and implementation phases.

The fundamental goal of this Plan is provide an Action Transportation System for the City of Canandaigua that is safe, accessible, comfortable, and well maintained for all users.

Implementation of this Plan will establish a network of pedestrian, bicycle and public transportation facilities. This network is shown on the Priority Route Map (figure 6a). The network is composed of priority locations and facilities where specific improvements have either already been made, are in the implementation phase or are proposed in the future. Figure 6a presents only priority routes and facilities, as per the "Complete Streets" movement all improvement projects will include provision for Active Transportation elements. This will expand and enhance the Active Transportation System beyond the listed priorities in the future. Greenways (shared-use paths) will also contribute to the network and the City should look to expand the network beyond those indicated on the Priority Route Map as opportunities are presented. The goal is to bring all roadways in compliance with "complete streets" and have the City of Canandaigua recognized as "bicycle friendly" and "walkable".

Priority Routes Recommendations

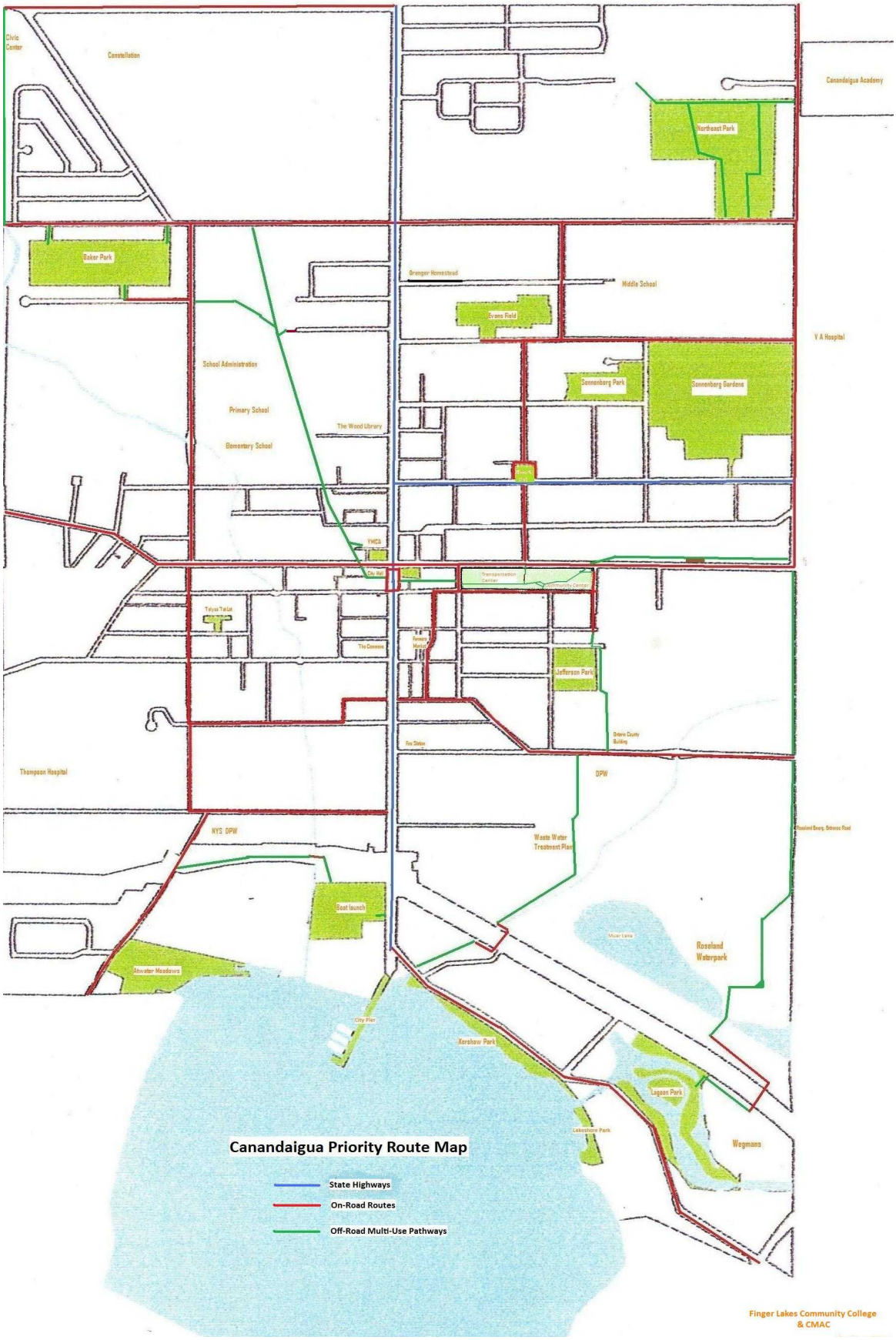
The priority treatments presented in this section include 5 areas of improvements:

- Bicycle on-road improvements – Figure 6b
- Bicycle off-road facilities- Figure 6c
- Shared-use path-Figure 6d
- Pedestrian treatments- Figure 6e
- Public transit treatments- Figure 6f

The priority treatments applied to specific facilities are presented in the Priority Route Recommended Treatment Chart – Figure 6g

The proposal for the Outhouse Transportation Center and Park is presented as a stand-alone recommendation. – Page , Figures 6j, 6k.

Figure 6a


Civic Center
Constellation
Canandaigua Academy
Northeast Park
Baker Park
Granger Homestead
Middle School
Evans Field
V A Hospital
School Administration
Primary School
Elementary School
The Wood Library
Sonnenberg Park
Sonnenberg Gardens
YMCA
City Hall
Transportation Center
Community Center
Tekyse Tekle
The Common
Jefferson Park
Ontario County Building
Fire Station
Thompson Hospital
DPW
NYS DPW
Waste Water Treatment Plant
Boat launch
Rosaland Waterpark
Kershaw Park
Lagoon Park
Lakeshore Park
Wegmans
Canandaigua Priority Route Map
State Highways
On-Road Routes
Off-Road Multi-Use Pathways
Finger Lakes Community College & CMAC

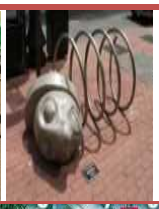
Bicycle On-Street Treatments

Treatment Reference	Treatment	Treatment Applied When:	Details & Examples	Est. Cost
A	Signed shared Roadway	Route is the preferred way between two destinations, used when curb lane or paved shoulder is wide enough for safe bicycle travel. Signage informs both motorists and bicyclists that the roadway is to be lawfully shared.		$200.00
B	"Hybrid" Lanes	Along a Shared Roadway or wide curb lane when wide enough for safe bicycle travel. Most beneficial when bikes will be traveling along on-street parking.		$200.00
C	Designated Driving Lanes	Streets with no pavement markings. Driving Lanes designated with center line(s) and solid outside line	10'6" lane width recommended If speed limit < 30 mph.	$.40/LF per line
D	Paved Shoulders	Facility in rural or uncurbed area.	4' recommended width when speed limit < 30 	$38.00SY
E	Bike Lanes	Facility is built for Group B/C riders. Creates perceptual separation from motor vehicle traffic when road width can accommodate a lane and maintenance is maintained and funded.	5' recommended width, (at least 4' left of gutter seam line)	$.50/LF per line
F	Bike Route Signs	Along designated bike routes or along a roadway connecting other bike facilities, signs are meant to advertise the most advantageous routes.		$75.00
G	Shared Lane Yield to Bicyclists	A bike lane or shoulder ends and bikes are meant to continue along wide curb lane		$100.00
H	Intersection Guidance Signage	Bicyclist and motorists are in need of instructions on how to proceed through an intersection		$100.00
I	Bicycle Safe Inlet Grates	Street inlet grates retrofitted as bicycle friendly		

Figure 6b

Bicycle Off-Street Treatment Chart

Figure 6c

Treatment Reference	Treatment	Treatment used when:	Details & Examples	Est. Cost
J	Bike Racks	Intended for short term storage(<4 hrs), racks are unprotected from weather.	 	$1,000.00
K	Bike Lockers	Intended for long term storage (>4 hrs.) useful for transit stations, hotels & apts.		$1200.00
L	Bike Shelters	Intended for mid-term storage (2-4 hrs) useful at offices, shopping centers, transit centers. Protects bikes and riders from weather.		$2,000.00
M	Bike Maps	Intended to inform bicyclists of recommended routes, local destinations and rules of the road	Distribution at transit stations, bike shelters, lockers and selected racks	

The Pedestrian and Bicycle Information Center provides guidelines concerning bicycle racks.[26]
Bicycle racks should:

- Support the frame of the bicycle and not just one wheel;
- Allow the frame and one wheel to be locked to the rack when front wheel is removed;
- Allow the use of either cable or U-shaped lock ;
- Be securely anchored and usable by a wide variety of sizes and types of bicycle.

Suggested Criteria for bicycle rack locations are;

- Covered parking should have a minimum of 6' head clearance and be in well lit area in open view;
- Racks should be used with minimum sidewalk width of 10', near the curb and away from building entrances;
- Racks must not interfere with boarding or loading passengers of public transportation;
- Install racks only on concrete, racks installed on asphalt are not secure;
- Racks must be 4' from hydrants, curb ramps, and building entrances;
- Racks placed within 50' of main entrance of building frequently used by bicyclists;
- MUTCD parking guard sign(D4-3) used to inform bicyclists of parking areas.

The United States Green Building Council (ASGBC) suggests:

- Commercial and industrial buildings provide bicycle racks for a minimum of 5% of building users ;
- School buildings provide racks for 5% or more of school staff or students above 3rd grade;
- Residential building provide covered storage for a minimum of 15% of building residents.

Shared-Use Path Treatment Chart

Figure 6d

Treatment Reference	Treatments	Treatment used when	Details and Examples	Est. Cost
I	Trail Head Identification	Used to identify beginning/end of sections of shared-use path, or where parking or storage facilities are available.		
II	Path Rules and Regulations Signage	Used to inform users of general information (hrs. available for use), rules and regulations for the safe and enjoyment of all users.		
III	Path Rest Area	Spaced according to appropriate standards off-path rest areas to include bench, emergency call station, location marker, and appropriate history or nature information.		
IV	Location Markers	Uniquely numbered location markers spaced according to appropriate standards for emergency locating of user. Location map to be posted at all emergency facilities and 911.		
V	Location Maps	Path maps with "You are Here" designation in weather proof holders to advise users of destinations and present location placed strategically along pathway		
VI	Motor Vehicle Parking	Adequate motor vehicle parking to be provided at selected trailheads.	No overnight parking to be allowed. Parking allowed only during path usage hours.	
VII	10' Stone-dust Shared-use Path	Built to appropriate standards AASHTO,FHWA, ADA		
VIII	Pooper scooper station	Plastic bag dispenser with trash recepticle		
IX	Historical or Educational Information Sign	Inform public of Historical facts or educational information about nature, the environment or other relevant information		

X	Shelter	12' X 12' shelter for safety and rest, could be used with III, V, VIII and IX		
XI	Water Fountain and Spigot	Where feasible and cost effective		
XII	Emergency phone or alarm	Installed as per appropriate standards along path in conjunction with other safety and location marking facilities.		
XIII	Pedestrian & Bicycle Bridge	Installed per appropriate standards and to compliment current bridges in Lagoon Park.		$150,000 each
XIV	Same Grade Pedestrian Railroad Crossing	Installed per appropriate standards Appendix 6a		$30,000.^{00}
XV	Fitness Trail	A path equipped with obstacles or station distributed along its length for exercising the human body to promote good health. Appendix 6b		$7,500.^{00}

Pedestrian Treatment Chart

Figure 6e

Treatment Reference	Treatment	Treatment used when:	Details & Examples	Est. Cost
1	Sidewalks	No "pedestrian lanes" are present on either side of the roadway. Shown to reduce collisions and improve mobility to and from city destinations	FHWA and ITE recommend a width of 5'.	New - $11/ sq.ft.
2	Smooth Surface	Safe "pedestrian lanes" demand smooth surfaces, whether surface is concrete, asphalt or crushed stone. Provides safe, fully accessible, attractive facility.		
3	Marked Crosswalks	To indicate preferred locations for pedestrians to cross and designate right-of-ways to motorists.		$300 / lane
4	Advance Yield Markings	High risk of multiple threat accidents. Most effective on multilane roads with high traffic count where visibility of pedestrians is an issue. [24]		$150/sign installed
5	Flashing LED Pedestrian Crossing Signs	Mid-block high-risk crosswalks or part of Safe Routes to School program. Effective in extending range of visibility and increasing driver awareness.[25]		
6	"Your Speed" displays	Traffic calming is called for. Effective in school zones.[26]		
7	In- roadway warning system	In high-risk crosswalks and school zones. Increases driver awareness of pedestrians in crosswalk		$25,000 to $40,000 per crosswalk
8	Colored or Patterned Crosswalks	Highly visible crosswalks in high-risk areas. Increases driver awareness of crosswalk location		

Public Transit Treatment Chart

Figure 6f

Treatment Reference	Treatment	Treatment used when:	Details & Examples	Est. Cost
A	Bus Stop Shelters	Scheduled bus stops locations. Protects riders from elements while awaiting public transportation. Can be station for advertising and education		Avg. $5,000.00
B	Bus bike racks	Demanded for intermodal transportation. Essential for long distance or inter community and ride-to –work programs.		$1,000.00
C	Vintage Bus Trolley	Three season transportation for local residents and tourists. Would serve as connector between shopping corridor (5&20), the lake front and the downtown destinations.		?
D	Outhouse Transportation Center	Demand for public transportation center for rider health and safety. Also for ticket sales, park and ride parking, bike storage, bike rental, bike repair. Center for tourist information, user education, encouragement and advocacy. Part of proposed Roundhouse Park	 	$750,000

Transportation experts agree that public transportation will play an expanded role in our transportation system in the future.[28,29] However, the benefits of public transportation related to reducing congestion, fuel consumption, and highway infrastructure costs diminish when occupancy rates of trains and buses are low. Increasing total ridership and occupancy rates must therefore be a top priority to maximize return on existing and future infrastructure investments. The development of the Outhouse Transportation Center and the Roundhouse Park will provide a safe, comfortable, attractive and centrally accessible facility encouraging people to choose Active Transportation as their preferred mode of transportation.

Policies and Programs

Complete Streets Policy

Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.[30]

A complete streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.

In the City of Canandaigua many streets lack sidewalks, few accommodate bicyclists well and most encourage motor vehicles to travel too close and too fast for pedestrian and bicyclist safety. The lack of permanent bus stop facilities creates an unsafe environment for all users including motorists due to unanticipated stops.

A common misconception is that complete streets cost more to build than traditional car-centered streets. In fact, complete streets most often cost no more and many times cost less than traditionally designed streets. Using the same right-of-way width, streets can be designed with narrower lane widths providing safer bicycle travel lanes at the same time slowing traffic. There is also an economic benefit through encouraging people to use Active Transportation modes of travel to reach their destination which benefits local businesses . appendix 6 c

The Plan recommends the City of Canandaigua adopt the policy of "Complete Streets" as the guiding principle for the building and refurbishing our infrastructure.

A copy of the recommended policy is presented in Figure 6h

According to the resident survey

71% of respondents experienced interference from motor vehicle drivers as a pedestrian. *

66% of respondents experienced interference from a pedestrian or cyclist as a motor vehicle driver.*

*Resident Survey : Question 18 and 20

Complete Streets Proposed Policy

The City of Canandaigua hereby adopts the policy of "Complete Streets" as a guiding principle for our infrastructure. "Complete Streets" are defined as facilities that "are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and bus riders of all ages and abilities are able to safely move along and across a complete street.

The City will support the development of a complete street system of bikeways, pedestrian facilities and shared use paths, bicycle parking and safe crossing connecting residences, businesses and public places. The City will promote bicycling and walking for health, environmental sustainability, exercise, transportation and recreation.

Bicycle and pedestrian facilities shall be provided in all new construction, reconstruction and maintenance projects in the City of Canandaigua unless one of the following conditions is met:

Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, bicyclists and pedestrians will be accommodated elsewhere within the right of way or within the same transportation corridor.

The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Disproportionate is defined as exceeding twenty percent of the cost of the larger project.

In cases where the existing right-of way does not allow for sidewalks, bike lanes, paths or other improvements, potential alternatives will include the appropriate use of paved shoulders, signage, traffic calming and/or enhanced education and enforcement.

Bicycle and Pedestrian facilities will be provided and maintained in accordance with guidelines adopted by the United States Department of Transportation (USDOT), New York State Department of Transportation(NYSDOT) and the American Association of State Highway & Transportation Officials(AASHTO). Site plan and subdivision reviews conducted by the City will incorporate these facilities. On county and state maintained roadways within the City, bicycle and pedestrian facilities will be provided in accordance with this policy. City offices and public buildings will provide bicycle parking and lockers in accordance with local zoning and planning regulations.

Zoning Policy

The zoning ordinance could be revised to encourage existing or future commercial properties to provide bicycle facilities for their employees and customers. In addition, more specific bicycle location, minimum number per building type, installation requirements and land use design should be reviewed and updated to conform to the complete street model. The City Council has the legal authority to pass or amend a zoning law. However, the Zoning Board can research zoning tools and draft a zoning law to be considered by the City Council. The Planning Commission can research and draft recommended design standards to be considered by City Council.

Programs

Although the City Council has direct responsibility to implement this plan's recommendations, policies and programs, active involvement of citizens and other organizations is vital for successful implementation. Public-Private and inter-governmental partnerships should be encouraged wherever possible. Section XI, Implementation, details recommended objectives, ideas, and structures that would accomplish successful implementation. The City Council will need to delegate some responsibility in implementing the recommendations. Organizations such as the Canandaigua Walkers & Cyclists, can help with research, implementation, programs, grant writing, evaluations and action recommendations to City Council. In all cases, the committees or organizations should have clear direction from City Council and an efficient process in which to accomplish their work. Inter-governmental (City/County or City/State) partnerships should be sought and nurtured. This would encourage continuity, efficiency and increase the effectiveness of the implementation process.

Four programs are suggested for immediate execution with the intention of visibly confirming the City of Canandaigua's commitment to Action Transportation and becoming "bicycle friendly" and "walkable".

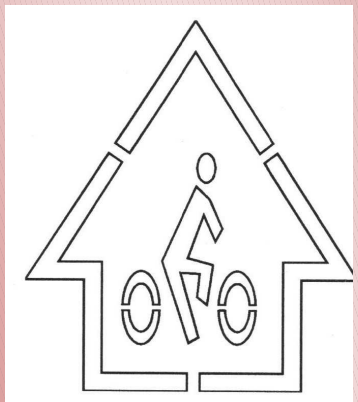
1. Share the Road" Campaign should be launched. Motorists need to be reminded that bicyclists are legitimate road users and alerted to their presence in high conflict areas. The goal of "Share the Road" is to have motorists and bicyclists work together to improve our individual and collective on-the-road behavior in terms of courtesy, cooperation and safety. "Share the Road" signs are just one step in a larger plan to educate motorists and bicyclists on safe and effective ways to coexist,

leading ultimately to greater safety for all. "Share the Road" signs are a fast, inexpensive, effective first step to improving traffic conditions for bicyclists and motorists. Primary factors for sign locations;

a. Conflict between motor vehicles and bicycles
b. Narrow lanes or roads with limited space for passing
c. No alternative routes
d. Popular Bike Routes
e. Uphill Grades

2. Install designated driving lanes and appropriate bicycle street stencils on Pearl St. and Parrish St. The two streets are highly traveled by bicyclists and would have an immediate effect on traffic flow and user behavior.

3. Develop and publish a brochure with safety lessons and rules of the road for motorists, bicyclists, and motorists. A hard copy of this brochure would be distributed at schools, parks, Chamber of Commerce, YMCA, Wood Library and the Police dept. It would also be available through the City's web site. Figure 23 provides an example from Binghamton, NY.


Hybrid bicycle lane symbol

4. Distribute the brochure Moving America Forward, 2008 edition, appendix 6 d provided by the Bikes Belong Coalition free of charge. This brochure is an informative introduction to Active Transportation and the growing bicycle industry.
Brochures would be distributed at schools, Chamber of Commerce, YMCA, Wood Library, bike shops and City Hall.

Figure 6h

Bicycle Route Map - Greater Binghamton Area

Bike Racks available on B.C. Transit Buses

Bicycle Route Map

Safety Equipment

Bicycle Roadway Signs & Pavement Markings

Share The Road

Bicycling Laws

Bicycling Tips:

Bike Route Information

Annual Events

Bicycling, Transportation & Recreational Organizations